

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. to 70. (Cancelled)

71. (Currently amended) A device for applying force to ~~an anatomical structure~~ a person's spine, the device comprising:
a first body-encircling member configured to wrap around and grip the person's torso ~~anatomical structure~~ at a first location;
a second body-encircling member configured to wrap around and grip the person's torso ~~anatomical structure~~ at a second location that is spaced apart from the first location in a first direction along the person's torso ~~anatomical structure~~;
and
at least one actuator connected between the first and second body-encircling members, the at least one actuator arranged to extend around the person's back and sides, the at least one actuator comprising an inflatable bladder having an asymmetrically elastic wall wherein, upon inflation, the wall constrains the bladder to expand preferentially along an axis extending between the first and second body-encircling members such that when the first and second body-encircling members are wrapped around the person's torso ~~anatomical structure~~, inflation of the bladder forces the first and second body-encircling members apart, thereby applying traction to the person's spine ~~anatomical structure~~
wherein the device is configured to be free of actuators in its portion extending across a front of the person.

72. (Previously presented) A device according to claim 71 wherein the bladder comprises a plurality of transversely-spaced generally-parallel tubular portions in fluid communication through at least one manifold, the tubular portions each expandible lengthwise upon inflation of the bladder and extending between the first and second body-encircling members.
73. (Previously presented) A device according to claim 72 wherein the tubular portions extend parallel to the first direction and are closely-spaced to provide a palisade-like arrangement when the bladder is inflated.
74. (Previously presented) A device according to claim 72 wherein the tubular portions support one another against deflection in a transverse direction when the bladder is inflated.
75. (Currently amended) A device according to claim 74 wherein ~~the first and second body encircling members are dimensioned to extend around a torso of a person, and wherein the~~ actuator extends substantially continuously through an angle which is at least 180 degrees and less than 270 degrees as measured relative to a central point on a coronal midline of ~~[[a]]~~ the person wearing the device.
76. (Currently amended) A device according to claim 71 wherein ~~the first and second body encircling members are dimensioned to extend around a torso of a person, and wherein the~~ actuator extends substantially continuously through an angle which is at least 180 degrees as measured relative to a

central point on a coronal midline of the person wearing the device.

77. (Previously presented) A device according to claim 76 wherein the bladder expands preferentially in a direction lying substantially in a surface defined between the first and second body-encircling members.
78. (Previously presented) A device according to claim 73 wherein the wall of the bladder has a higher modulus of elasticity on outward-facing sides of the tubular portions of the actuator than on inward-facing sides of the tubular portions of the actuator.
79. (Previously presented) A device according to claim 72 wherein the wall comprises an air-impermeable layer and a guide.
80. (Previously presented) A device according to claim 79 wherein the guide comprises two layers of asymmetrically-elastic material joined at longitudinally-extending seams wherein a high-stretch direction of the material is oriented lengthwise relative to the tubular portions.
81. (Previously presented) A device according to claim 80 wherein a low-stretch direction of the material is oriented circumferentially around the tubular portions.
82. (Previously presented) A device according to claim 81 wherein the tubular portions are generally cylindrical when the bladder is inflated and wherein portions of the guide

that contact the tubular portions are generally cylindrical when the bladder is inflated.

83. (Previously presented) A device according to claim 72 wherein, when laid flat, the actuator is generally rectangular and has a width in a direction along the body-encircling members that is greater than a height extending between the body-encircling members.
84. (Previously presented) A device according to claim 83 wherein the tubular portions extend substantially at right angles to the body-encircling members.
85. (Previously presented) A device according to claim 84 wherein the wall of the actuator in an area on an inner surface of the actuator has a lower modulus of elasticity than that of the wall of the actuator on an area on an outer surface of the actuator.
86. (Previously presented) A device according to claim 72 wherein the guide constrains the expansion of the tubular portions asymmetrically, thereby causing the actuator to bend when the bladder is inflated.
87. (Currently amended) A device according to claim 71 wherein ~~the first and second body encircling members are dimensioned to extend around a torso of a person, and wherein the~~ actuator extends substantially continuously through an angle which is at least 180 degrees and less than 270 degrees as measured relative to a central point on a coronal midline of [[a]] the person wearing the device.

88. (Currently amended) A device according to claim 87 wherein the device is dimensioned to apply unloading force to a lumbar spine of a person, ~~and wherein the actuator does not extend across a front of the person.~~
89. (Currently amended) A device ~~according to claim 71 wherein the first and second body encircling members are dimensioned to extend around a torso of a person, the device comprising for applying force to a person's spine, the device~~ comprising:
- a first body-encircling member configured to wrap around and grip the person's torso at a first location;
 - a second body-encircling member configured to wrap around and grip the person's torso at a second location that is spaced apart from the first location in a first direction along the person's torso; and
 - a first actuator connected between the first and second body-encircling members and located to be adjacent a first hip of [[a]] the person wearing the device and a second actuator connected between the first and second body-encircling members and located to be adjacent a second hip of the person wearing the device,
 - each one of the actuators comprising an inflatable bladder having an asymmetrically elastic wall wherein, upon inflation, the wall constrains the bladder to expand preferentially along an axis extending between the first and second body-encircling members such that when the first and second body-encircling members are wrapped around the person's torso, inflation of the bladder forces the first and second body-encircling members apart, thereby applying traction to the person's spine,

wherein, when the device is worn with the first and second actuators adjacent the person's hips, the first and second actuators do not extend across the person's front.

90. (Previously presented) A device according to claim 89 wherein the first and second actuators are individually adjustable.
91. (Currently amended) A method for applying force to a ~~body part~~ person's spine, the method comprising:
- providing a device comprising first and second body-encircling members, an inflatable bladder having an asymmetrically-elastic wall connected between the first and second body-encircling members;
 - securing the first body-encircling member around ~~the body part~~ the person's torso at a first location;
 - securing the second body-encircling member around ~~the body part~~ the person's torso at a second location spaced apart from the first location in a direction along the ~~body part~~ person's torso so that the inflatable bladder extends around the person's back and sides while leaving the person's front open; and
 - inflating the bladder;
- whereby, upon inflation, the asymmetrically-expandable wall causes the bladder to expand preferentially in a direction that forces the first and second body-encircling members apart thereby applying traction to the ~~body part~~ person's spine.
92. (Previously presented) A method according to claim 91 wherein the bladder comprises a plurality of transversely spaced generally parallel tubular portions and inflating the

bladder comprises allowing the tubular portions to support one another in a closely-spaced palisade-like arrangement.

93. (Previously presented) A method according to claim 92 wherein the wall of the bladder has a lower modulus of elasticity on inward-facing sides of the tubular portions of the actuator than on outward-facing sides of the tubular portions of the actuator and the method comprises, allowing the tubular portions to bow inwardly during inflation of the bladder.
94. (Currently amended) A method according to claim 91 wherein the ~~body part~~ portion of the spine to which force is applied is a lumbar spine of [[a]] the person and securing the first and second body-encircling members comprises:
- securing the first body-encircling member around the person's torso below the lumbar spine such that the portion of the first and second body-encircling members that is connected to the bladder extends across a back of the person; and,
- securing the second body-encircling member around the person's torso above the lumbar spine.
95. (Previously presented) A device according to claim 71 wherein the asymmetrically elastic wall comprises a woven asymmetrically-elastic material having a high-stretch direction oriented parallel to the first direction.
96. (Cancelled)
97. (Currently amended) A device according to claim 71 wherein[[:]]

~~the first and second body encircling members are dimensioned to extend around a torso of a person;~~

the at least one actuator comprises one or more actuators arranged along the first and second body encircling members so as to extend substantially continuously through an angle which is more than 180 degrees as measured relative to a central point on a coronal midline of ~~[[a]]~~ the person wearing the device; ~~and,~~

~~the at least one actuator does not extend across a front of the person wearing the device.~~

98. (Currently amended) A device according to claim 71 wherein the first and second body encircling members are dimensioned to extend around a torso of the person ~~a wearer~~ and the at least one actuator is dimensioned to extend substantially continuously around sides and back of the ~~wearer's~~ person's torso while leaving a front of the ~~wearer's~~ person's torso unobstructed by the at least one actuator.
99. (New) A device according to claim 71 wherein a forwardmost position of the actuator relative to a torso coronal midline of the person is less than about 5 inches.